

Title (en)  
INTRAOCULAR LENS WITH PHOTSENSITIZER AND METHOD FOR MODIFYING THE REFRACTIVE INDEX OF THE LENS

Title (de)  
INTRAOKULARLINSE MIT PHOTSENSIBILISATOR UND VERFAHREN ZUR MODIFIZIERUNG DES BRECHUNGSINDEX DER LINSE

Title (fr)  
LENTILLE INTRAOCULAIRE À PHOTSENSIBILISATEUR ET PROCÉDÉ DESTINÉ À MODIFIER L'INDICE DE RÉFRACTION DE LA LENTILLE

Publication  
**EP 2326285 B1 20120215 (EN)**

Application  
**EP 09751282 A 20090518**

Priority

- US 2009044335 W 20090518
- US 5422508 P 20080519
- US 38089209 A 20090304

Abstract (en)  
[origin: US2009287306A1] A method for modifying the refractive index of an optical, hydrogel polymeric material. The method comprises irradiating predetermined regions of an optical, polymeric material with a laser to form refractive structures. To facilitate the formation of the refractive structures the optical, hydrogel polymeric material comprises a photosensitizer. The presence of the photosensitizer permits one to set a scan rate to a value that is at least fifty times greater than a scan rate without the photosensitizer in the material, yet provides similar refractive structures in terms of the observed change in refractive index. Alternatively, the photosensitizer in the polymeric material permits one to set an average laser power to a value that is at least two times less than an average laser power without the photosensitizer in the material, yet provide similar refractive structures.

IPC 8 full level  
**A61F 2/16** (2006.01)

CPC (source: EP KR US)  
**A61F 2/14** (2013.01 - KR); **A61F 2/1451** (2015.04 - EP); **A61F 2/16** (2013.01 - KR); **A61F 2/1627** (2013.01 - EP US); **A61F 9/00804** (2013.01 - US); **A61L 27/18** (2013.01 - KR); **A61L 27/50** (2013.01 - EP US); **A61L 27/52** (2013.01 - EP US); **B29C 71/04** (2013.01 - KR); **B29D 11/00** (2013.01 - KR); **B29D 11/00009** (2013.01 - US); **B29D 11/00461** (2013.01 - EP); **B29D 11/023** (2013.01 - EP); **G02B 1/12** (2013.01 - KR); **A61F 2/1635** (2013.01 - EP US); **A61L 2430/16** (2013.01 - EP US); **G02C 2202/14** (2013.01 - EP US)

Cited by  
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DOCDB simple family (publication)  
**US 2009287306 A1 20091119**; **US 9060847 B2 20150623**; AT E545388 T1 20120315; AU 2009249242 A1 20091126; AU 2009249242 B2 20130718; CA 2724960 A1 20091126; CA 2724960 C 20130108; CN 102065795 A 20110518; CN 102065795 B 20140910; EP 2326285 A2 20110601; EP 2326285 B1 20120215; ES 2379582 T3 20120427; HK 1154479 A1 20120427; JP 2011520561 A 20110721; JP 5243600 B2 20130724; KR 101636588 B1 20160705; KR 101761079 B1 20170724; KR 20110020231 A 20110302; KR 20160079154 A 20160705; PL 2326285 T3 20120731; US 2013268072 A1 20131010; US 8901190 B2 20141202; WO 2009143054 A2 20091126; WO 2009143054 A3 20100128; WO 2009143054 A8 20110303

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**US 38089209 A 20090304**; AT 09751282 T 20090518; AU 2009249242 A 20090518; CA 2724960 A 20090518; CN 200980118220 A 20090518; EP 09751282 A 20090518; ES 09751282 T 20090518; HK 11108895 A 20110823; JP 2011510617 A 20090518; KR 20107025854 A 20090518; KR 20167017365 A 20090518; PL 09751282 T 20090518; US 2009044335 W 20090518; US 201213628785 A 20120927